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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,054	12/27/2001	Kevin Allan Dooley	01-777	1701

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EXAMINER

LIU, HAN L

ART UNIT PAPER NUMBER

3746

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/034,054	<b>Applicant(s)</b> DOOLEY, KEVIN ALLAN	
	<b>Examiner</b> Han Lieh Liu	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 6-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4, 7, 8, 12, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6, 9-11, 13-14 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. <u>5/24/04</u> .                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Interview***

1. An interview was conducted as result of the cancelled independent claim 1. The corresponding dependent claims 6, 12 and 15, which was depended on claim 1, are not valid. They should have been dependent claims of the amended claim 2.

Authorization for this dependence change was given in a telephone interview with Mr. Todd D. Bailey of Pratt & Whitney Canada Corp. Legal Department on 5/21/2004.

The application has been amended as follows:

### **IN THE CLAIMS:**

Claim 6 line 1, claim 12 line 2 and claim 15 line 2: "claim 1" has been changed to --claim 2--.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "said third chamber" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2 – 4 and 7 – 8, 12 and 15 – 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Murata (JP 11-182437).

With regard to claims 2 and 7, Murata discloses a pump in Fig. 1 comprising: a piston (7 with 20 and 24) formed of a magnetostrictive material susceptible to change in physical dimensions in the presence of a magnetic field, paragraph 10 line 1, first (19) and the second (23) pumping chambers coupled to said magnetostrictive element (7) to vary in volume as said magnetostrictive element changes shape and changing first 19) and second (23) chamber volume in phase.

With regard to claims 3 – 4, 8, 12 and 15, Murata further discloses that the elongation is to a lengthwise extent, paragraph 6 line 2; first (19) and second (23) are located at opposite ends of the lengthwise extent as illustrated in Fig. 1; input (15b, 17b) and output (15a, 17a) are interconnected in parallel via chambers (19 and 23); and inputs (15b, 17b) and outputs (15a and 17a), Fig. 1, are in series.

With regard to method claim 16, according to MPEP §2112.01 *Composition, Product, and Apparatus Claims* – “when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent”, *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

***Allowable Subject Matter***

4. Claims 6, 10 – 14 and 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

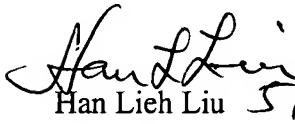
5. Applicant's arguments, see 6, filed on 3/8/2004, with respect to the rejection(s) of claim(s) 1 and 5 under 35 USC§102(b) have been fully considered and are moot due to claims cancellation. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found reference by Murata as presented above.

This Office Action is non-final to afford the applicant the opportunity to respond to the new ground of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Han Lih Liu whose telephone number is 703-305-0860. The examiner can normally be reached on Monday - Thursday 7:30 to 16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Han Lieh Liu 5/24/04